

# Topical Use of Cortisone in Urology

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TOPICAL APPLICATION of cortisone acetate has been used by the authors in treatment of interstitial cystitis including contracted bladder, inflammation of the wall of the bladder, trigonitis and urethritis in females, and non-specific urethritis in males.

To determine whether or not any of the results of topical therapy might be owing to systemic absorption of cortisone, study was made of the eosinophil content of the blood of patients receiving topical therapy. The eosinophil content was determined at hourly intervals for six hours after treatment, and no significant change was noted. It was concluded that if there was systemic absorption it was so slight that it could not be considered a factor in results.

In all cases in which there were indications of infectious disease of the urinary tract, attempt was made to clear it by use of antibacterial drugs, but if infection persisted despite such measures, cortisone therapy was carried out concomitantly with them.

The hormone, suspended in saline solution, was instilled into the bladder through a No. 12 or 14 (French) urethral catheter and after each instillation a spurt of air was blown through the catheter to make sure none of the mixture remained in the tubing.

The dosage used was 125 mg. of cortisone in 5 cc. of saline solution and the schedule of infusion was twice daily for two or three days for patients treated in the hospital and once a day for two or three days for those treated in the office. After that in most cases the hormone was administered three times weekly for one to two weeks and then discontinued. For some patients with interstitial cystitis and contracted bladders, cortisone therapy was repeated at intervals. For example, one patient was kept comfortable and the bladder capacity normal with one treatment every six weeks consisting of overdistending the bladder under local anesthesia, by filling it with sterile water, then emptying it and instilling cortisone.

Before cortisone was used topically in the manner described, patients who had interstitial cystitis or contracted bladder with clear urine, but with pollakiuria, urgency, nocturia and pain when the bladder

*• Cortisone was instilled into the bladder in the treatment of interstitial cystitis and contracted bladder, trigonitis and urethritis in females, nonspecific urethritis in males, and inflammation of the wall of the bladder. In infectious cases the hormonal therapy was used after antibacterial measures had failed. Improvement occurred quickly in most cases soon after cortisone therapy was given. In a few cases of interstitial cystitis and contracted bladder the relief obtained was inadequate and it was necessary to carry out overdistention procedures under visualization. When that was done, however, it was noted that the condition of the bladder was improved as compared with the conditions usually observed in cases in which cortisone treatment is not given before the procedure.*

*Results of tests of the blood during therapy indicated that the benefits of the treatment were not owing to systemic absorption of cortisone.*

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was distended, were given general anesthesia in a hospital and overdistention was carried out under vision. When the bleeding lesions usually present in the distensible portion of the bladder in interstitial cystitis were located, fulguration was carried out. This procedure had to be repeated from time to time as symptoms indicated. Often after overdistention of a contracted bladder, multiple areas of petechial hemorrhage were noted throughout the organ. Cortisone infusion as an office procedure now has replaced hospitalization in most cases, but in a few cases in which symptoms were not completely relieved after six or more topical treatments with the hormone, the patients were hospitalized and distention under vision was carried out. It was noted that petechial hemorrhages such as were present in patients who had not had cortisone therapy, were absent in these cases. Furthermore, the bladder capacity increased readily on one overdistention and the wall of the bladder seemed to have greater elasticity and to distend much more easily. Resumption of topical cortisone therapy in these cases after the overdistention procedure brought about pronounced clinical improvement.

Females who had urethritis and trigonitis with

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clear urine usually had a decrease in urethral pain and in nocturia and urgency when topical cortisone therapy was given. In cases in which stress incontinence was present, it usually abated.

Men with non-specific urethritis and grossly cloudy urine who had not been benefited by other kinds of treatment showed a pronounced improvement when cortisone was administered. The urethral discharge and other symptoms disappeared in less than 24 hours. The group included one patient with Reiter's syndrome who responded readily to treatment. In treating these patients the solution was injected into the urethral meatus with a blunt-nosed syringe and a penis clamp was then applied for a few minutes.

The group of patients with inflammation and bullous edema of the wall of the bladder and cloudy urine had had antibacterial therapy of all kinds without benefit. Several had indwelling catheters and in those cases the catheter was kept clamped for a half hour or more after the cortisone was instilled. Whereas with antibacterial therapy the urine of patients in this group remained foul, cloudy and severely infected, it became grossly clear and free of infection in a few days after topical cortisone therapy. Upon cystoscopic examination it was noted that the appearance of the bladder became normal in a surprisingly short time.

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### In Viewing the VA Medical Program . . .

| <i>VA patient load as of a given day</i><br>January 31, 1952                        |                       |                 |                 |
|---|-----------------------|-----------------|-----------------|
|  | service connected     | 36,699 or 35%   |                 |
|  | non-service connected | 70,910 or 65%   |                 |
|   | TO                    | NO              | ONAS            |
|   | 9,482 or 15.4%        | 36,317 or 48.3% | 35,041 or 46.3% |
| TOTAL   |                       | 107,609 or 100% |                 |

While the VA lists its patient load on a given day as 35% service-connected, only the long-range view of admissions and discharges over a year's time gives a truly accurate picture of the service-connected load (only 15.4%). This "discrepancy" appears because the VA's listing of 35% on a daily basis is not affected by the yearly turn-over of patients—the ratio of VA patients remaining to those treated and discharged (1 to 5.1). Over a period of a year, 84.6% of VA patients are treated for disabilities incurred after—and having no relationship to—military service.